

FIG. 1



FIG. 3A

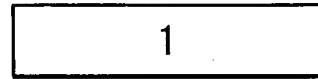
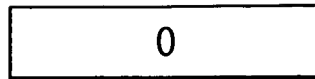


FIG. 3B

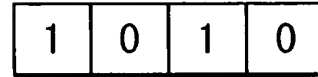
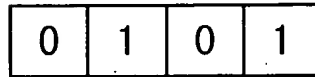


FIG. 3C



FIG. 3D

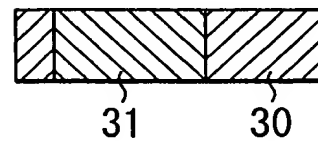
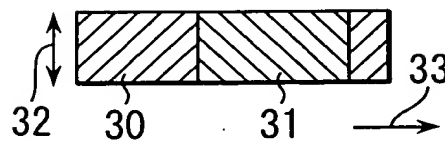


FIG. 4A

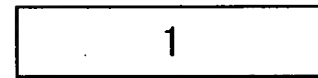
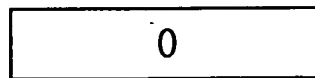


FIG. 4B



FIG. 4C



FIG. 4D

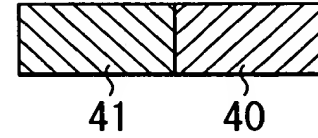
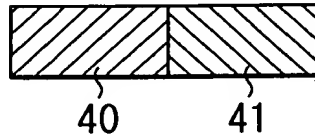


FIG. 5A

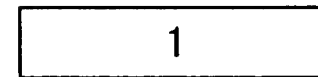
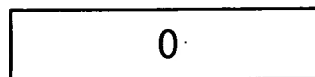


FIG. 5B

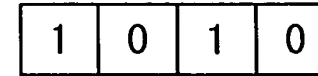
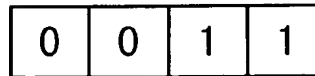


FIG. 5C



FIG. 5D

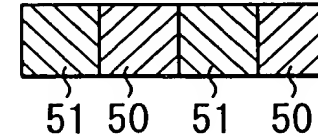
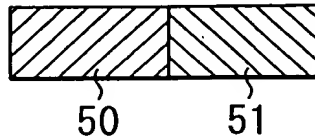


FIG. 3A

FIG. 6A 1111000011001111

FIG. 6B

```

10101010101010010101010101010101010101010101
10101010101010101010101010101010101001010101
1010101010101010

```

FIG. 6C

FIG. 6D

FIG. 6E

10101010101010010101010101010101010101010101
1010101010101010

FIG. 7A 11111

FIG. 7B

00001100

FIG. 7C
11111

FIG. 7D

FIG. 7E

FIG. 7F
1010 1010 1010 1010

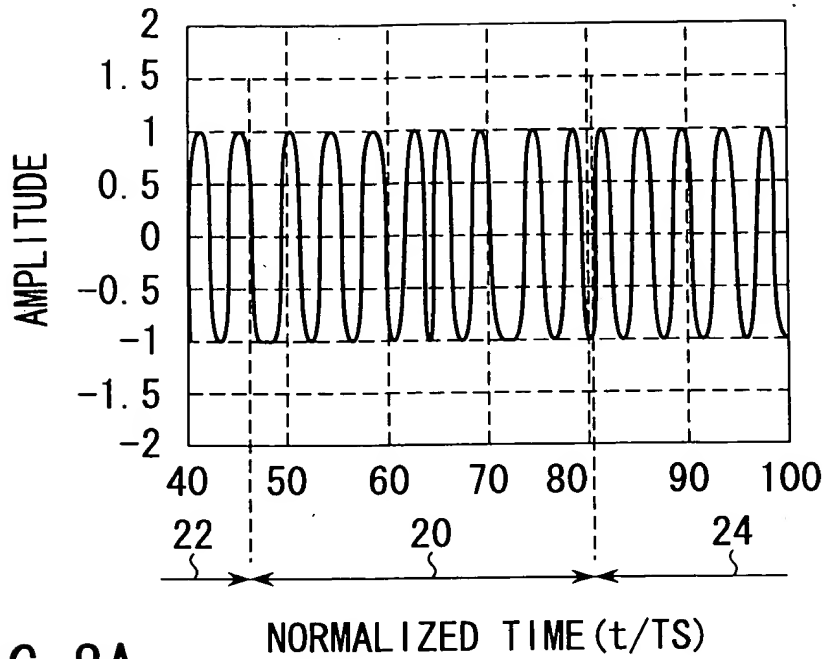


FIG. 8A

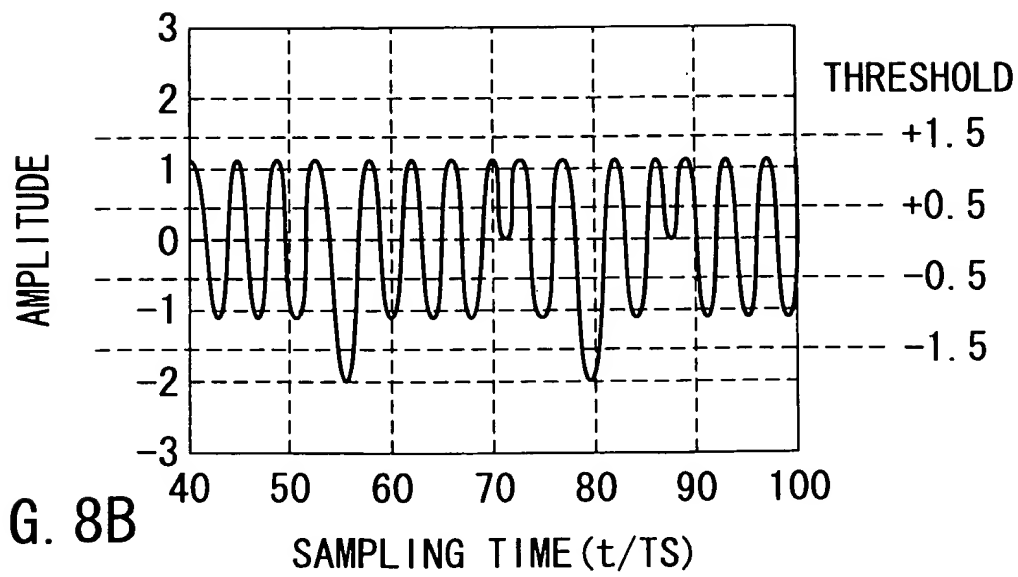


FIG. 8B

FIG. 8A

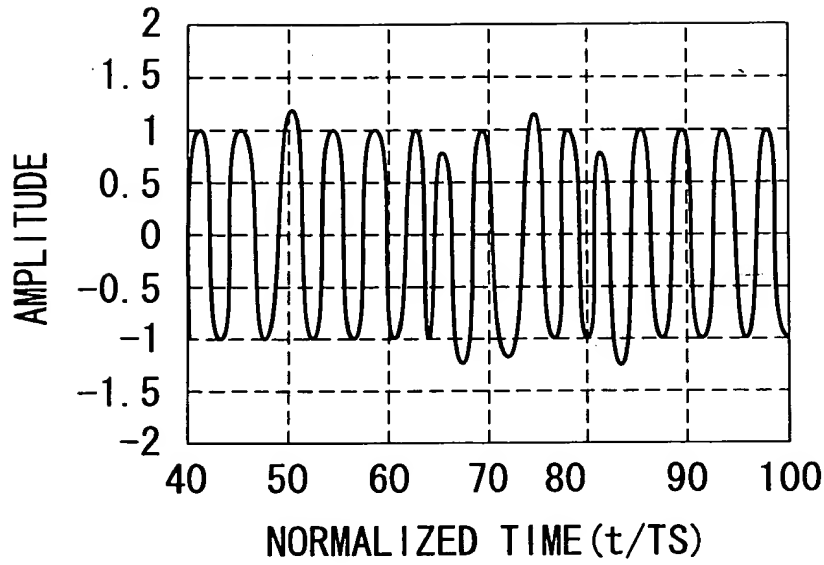


FIG. 9A

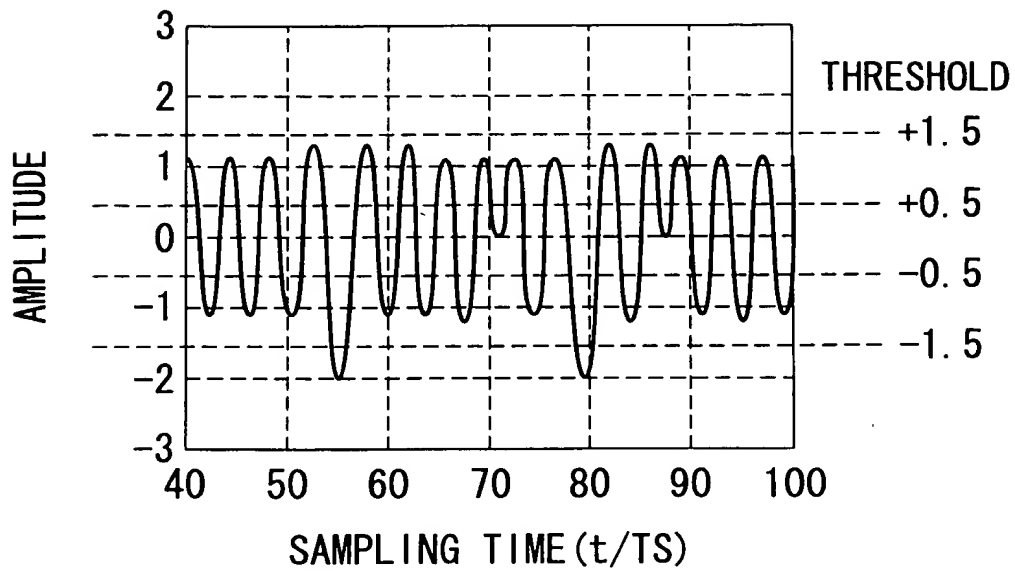


FIG. 9B

| | | |
|---|---|------|
| 0 | → | 0000 |
| 1 | → | 1010 |

FIG. 10A

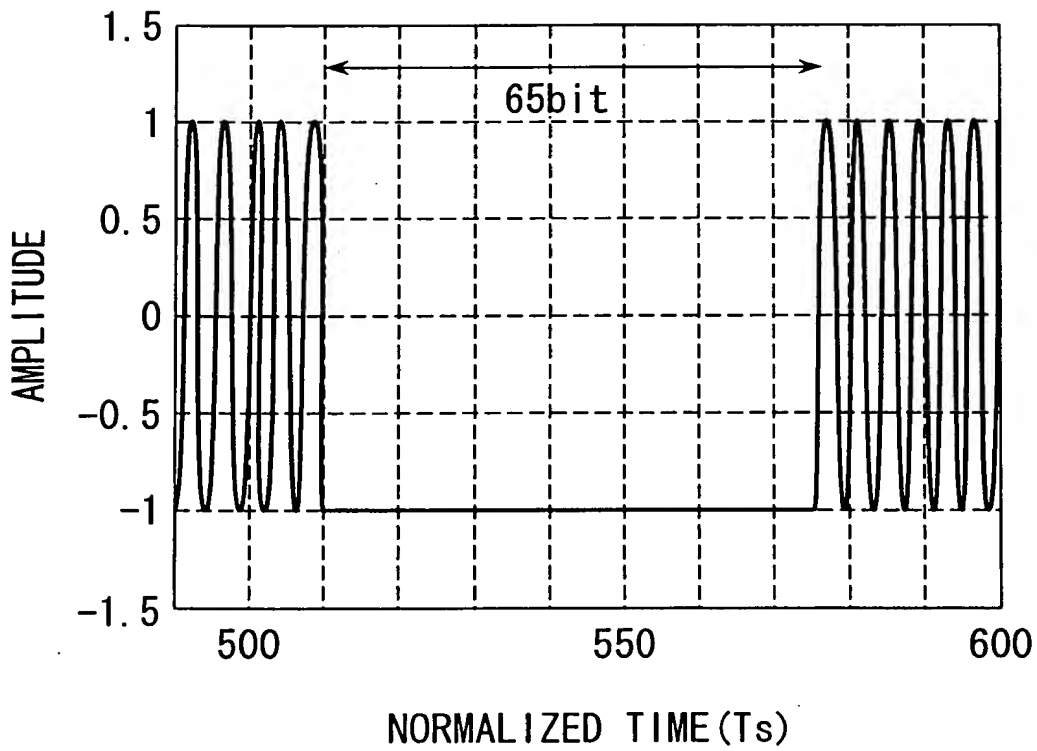


FIG. 10B

09942741.03101
T01E80-T424660

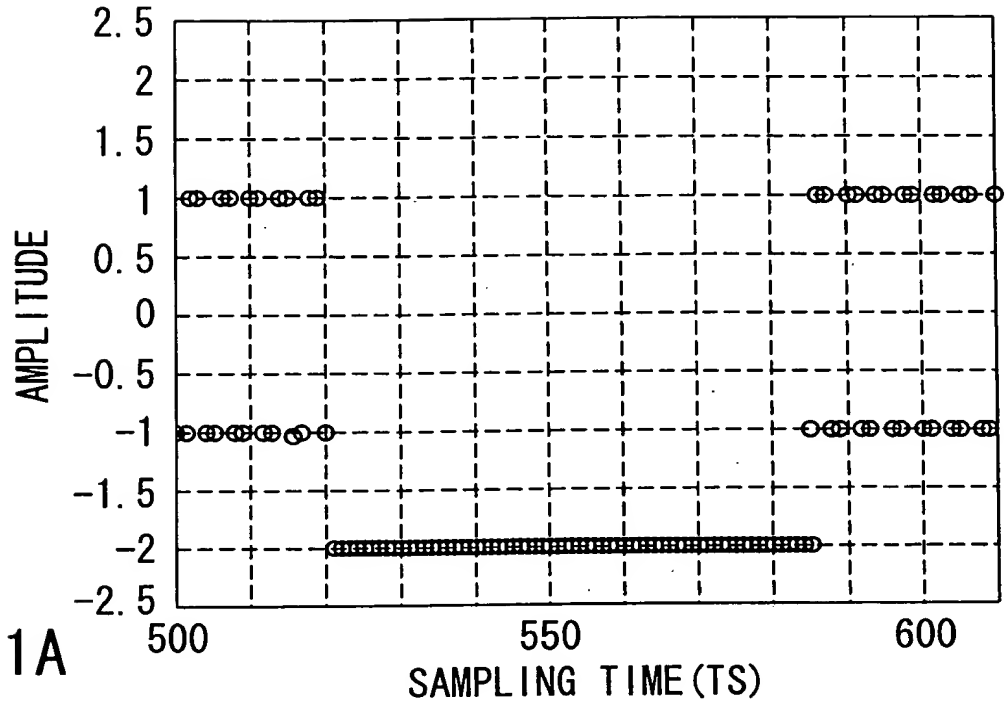


FIG. 11A

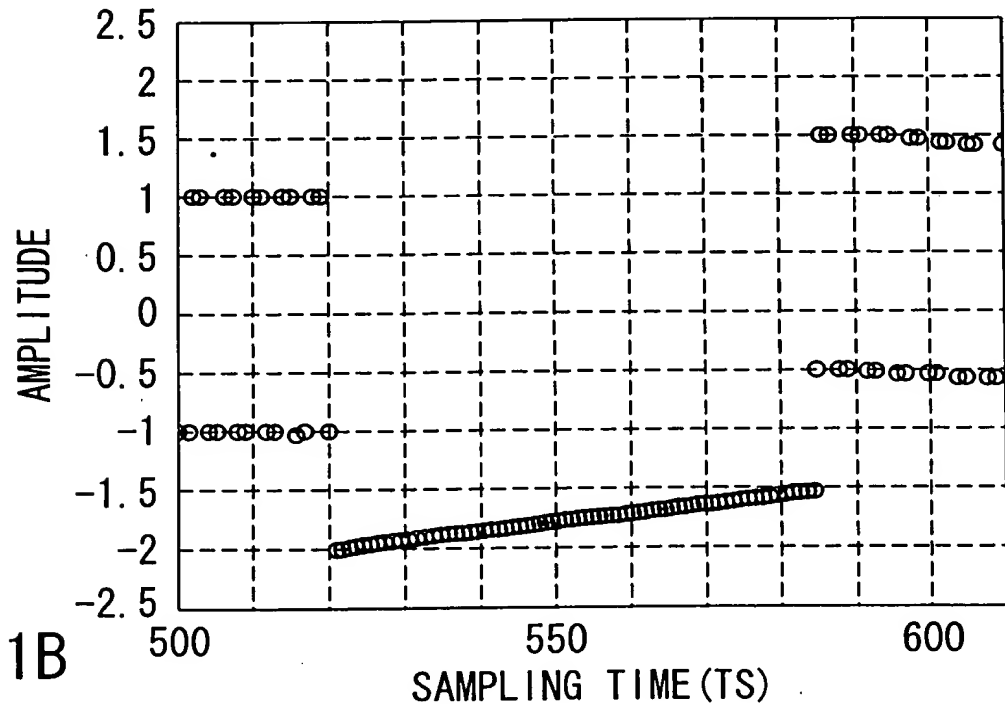
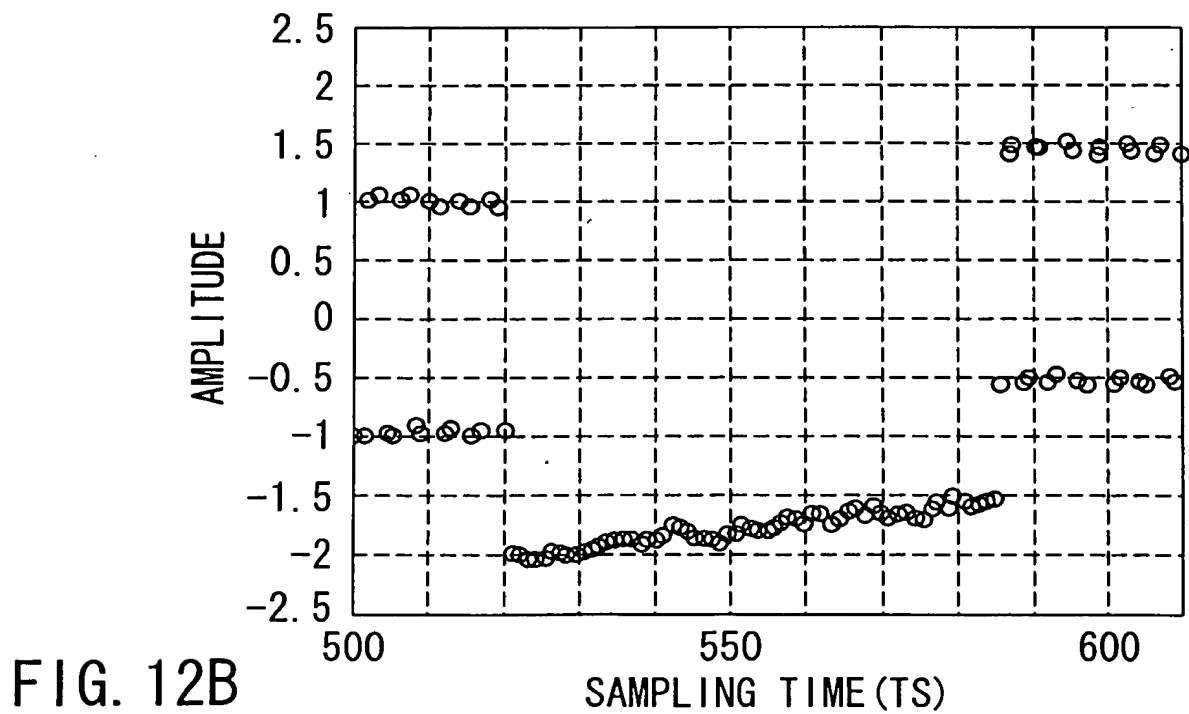
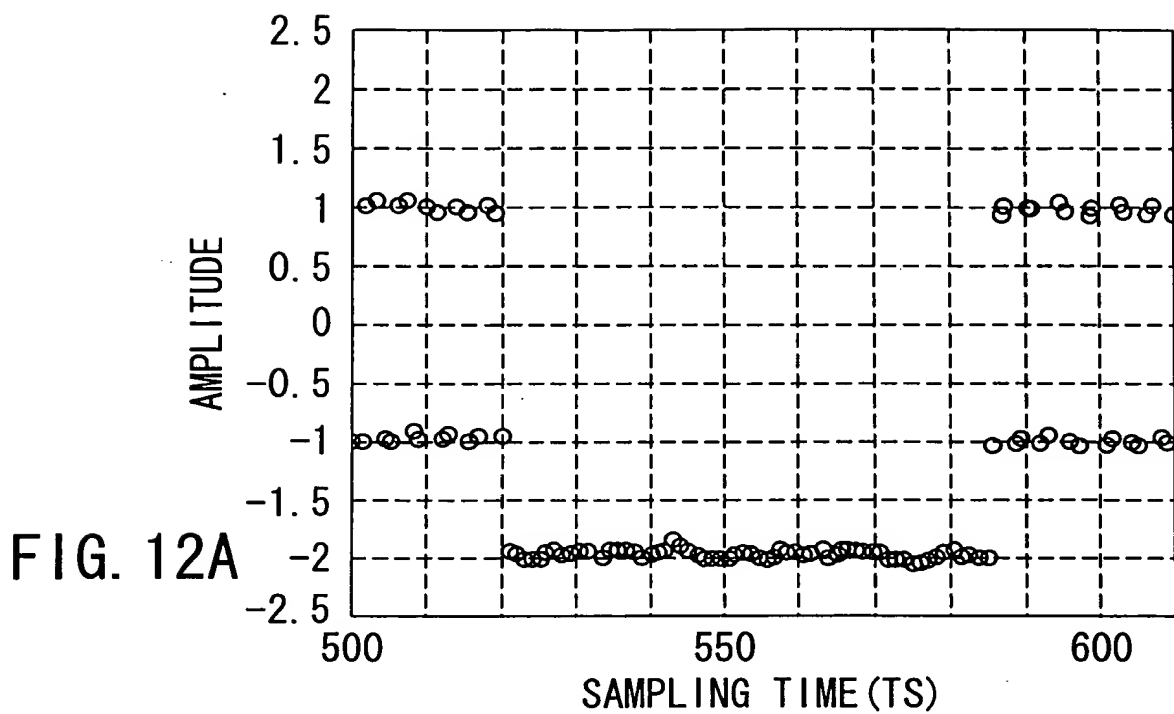


FIG. 11B



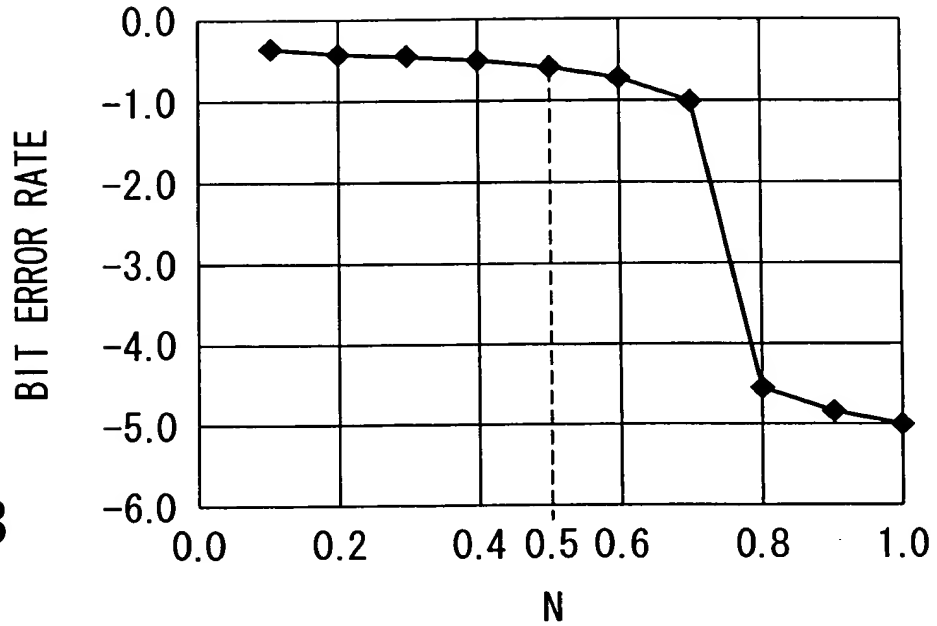


FIG. 13

| Tmin=65 (bit) | | | |
|---------------|-------------------------------------|----------|----------|
| N | $f_c = \frac{-\ln N}{2\pi T_{min}}$ | | |
| | | BER | BER(log) |
| 0.1 | 5.64E-03 | 4.46E-01 | -0.3506 |
| 0.2 | 3.94E-03 | 4.09E-01 | -0.3880 |
| 0.3 | 2.95E-03 | 3.81E-01 | -0.4192 |
| 0.4 | 2.24E-03 | 3.44E-01 | -0.4631 |
| 0.5 | 1.70E-03 | 2.97E-01 | -0.5272 |
| 0.6 | 1.25E-03 | 2.26E-01 | -0.6454 |
| 0.7 | 8.73E-04 | 1.14E-01 | -0.9419 |
| 0.8 | 5.46E-04 | 2.93E-05 | -4.5324 |
| 0.9 | 2.58E-04 | 1.49E-05 | -4.8268 |
| 1.0 | 0.00E+00 | 1.10E-05 | -4.9586 |

FIG. 14

FIG. 13

FIG. 18F (PRIOR ART) 1010 1010 1010 1010

FIG. 16A
(PRIOR ART)

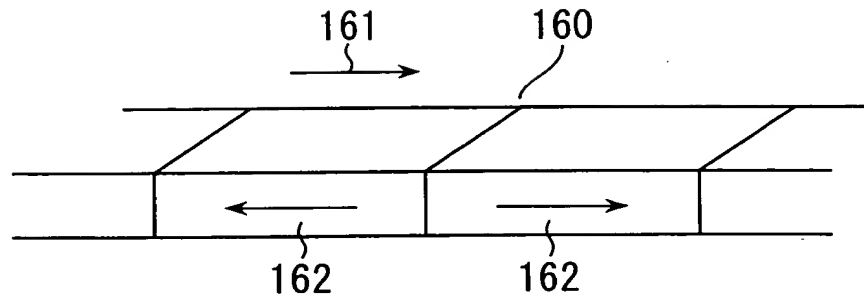


FIG. 16B
(PRIOR ART)

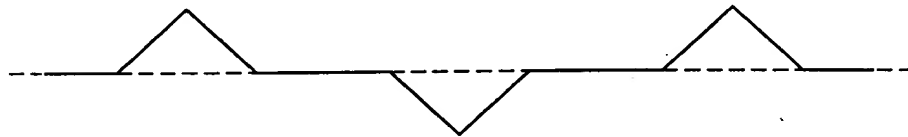


FIG. 17A
(PRIOR ART)

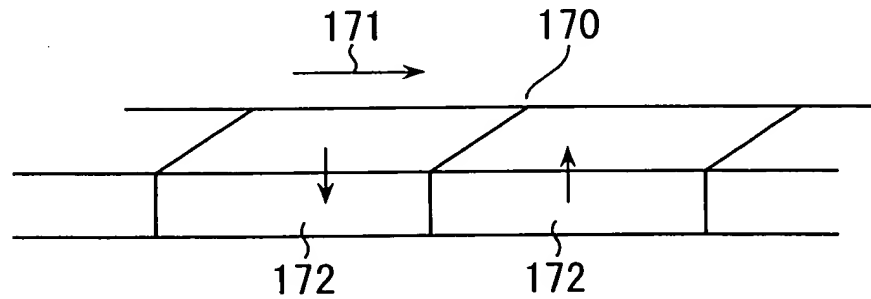


FIG. 17B
(PRIOR ART)

